REMARKS

Claims 1-10 are pending in the present patent application. Claims 1-10 stand rejected. By this Amendment, claims 11-19 have been added. This application now includes claims 1-19.

The Examiner rejected claims 1-10 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,291,767 (Weindorf, Jr., et al.), hereinafter, Weindorf. Applicants respectfully request reconsideration of the rejection of claims 1-10 in view of the following.

Weindorf discloses a lock cylinder apparatus 10 that includes a first lock cylinder assembly 12 to be mounted in an aperture 15 in one side 14 of a door 16 and a second lock cylinder assembly 18 to be mounted in an aperture 17 in the other side 20 of the door 16. (Weindorf, column 3, lines 31-37; Figs. 1-4). The second lock cylinder assembly 18 includes a second lock cylinder body 84, an interchangeable lock core 86, and a second adaptor ring 88. A spring-loaded cylinder ring 90 is mounted to surround the second lock cylinder body 84 and a cam assembly 92 is attached to second lock cylinder body 84 to control operation of the lock mechanism 55 contained in the lock case 34. The interchangeable lock core 86 having a *permanently attached thumb-turn 94* is inserted into second lock cylinder body 84 and held in place by a hidden setscrew 95 passing through an aperture 97 formed in the second lock cylinder body 84, as shown in Fig. 1. (Weindorf, column 4, lines 25-40).

Claim 1 is directed to a lockset, and recites, "a lock mechanism having an aperture; an operator; and a turn-button mounted in said operator, said turn-button including: a head portion; and a shaft extending from said head portion, said shaft having a leading helical end portion that engages said aperture of said lock mechanism."

In rejecting Applicants' claims, the Examiner applies Weindorf as set forth in the chart below:

Language of Applicants' Claims	Weindorf
lock mechanism	lock cylinder 10
actuator	lock case 34, lock mechanism 55
aperture	exterior side wall 82 of lock case 34
operator	cylinder ring 90
turn-button	lock cylinder assembly 18
head portion	thumb turn 94
shaft	second lock cylinder body 84
leading helical end tip	threads of second lock cylinder body 84

From the table above, and as explained below, it appears that the application of Weindorf to the claimed invention is not accurate, and often does not find corresponding structure to that recited in Applicants' claims. Such an application of Weindorf is tantamount to an attempted hindsight reconstruction of Applicants' claims, using Applicants' claims as a template. The Examiner may not, because of doubt that the invention is patentable, resort to speculation, unfounded assumption or hindsight reconstruction to supply deficiencies in the factual basis for the rejection. *In re Warner*, 154 U.S.P.Q. 173,178 (CCPA 1967).

For example, the cylinder ring 90 is said to correspond to the recited "operator". An operator is well known in the art to be something that operates a machine or device, and examples given in Applicants' specification at page 2, line 23 for an operator 16 are a door knob or lever. However, cylinder ring 90 of Weindorf asserted by the Examiner to be an operator does not

operate anything, but rather, forms a freely rotating outer housing for second lock cylinder body 84 to prevent twist off. Weindorf, column 5, lines 7-15.

Next, for example, claim 1 recites "a turn-button mounted in said operator, said turn-button including: a head portion; and a shaft extending from said head portion". The Examiner asserts that the second lock cylinder body 84 of Weindorf corresponds to the recited shaft. However, as is shown in Figs. 1 and 2 of Weindorf, thumb turn 94 is a portion of interchangeable lock core 86, and the shaft that extends from thumb turn 94 engages the body of interchangeable lock core 86. Second lock cylinder body 84 includes an aperture for receiving the interchangeable lock core 86.

Next, for example, claim 1 recites that "said shaft having a leading helical end portion that engages said aperture of said lock mechanism". The Examiner asserts that the threads of second lock cylinder body 84 correspond to the recited leading helical end portion of the shaft. However, using the Examiner's prior assertions, second lock cylinder body 84 does not engage exterior side wall 82 (the asserted aperture) or cylindrical mounting hole 78 in exterior side wall 82. Rather, in Weindorf it is the adapter ring 88 that engages exterior side wall 82 and cylindrical mounting hole 78, and second lock cylinder body 84 is threaded into adapter ring 88. Further, with respect to lock mechanism 55, it is cam assembly 92 that engages and controls lock mechanism 55, and cam assembly 92 clearly is not a "*shaft* having a leading helical end portion that engages said aperture of said lock mechanism" (emphasis added), as recited in claim 1.

Accordingly, for the reasons set forth above, the application of Weindorf to anticipate claim 1 does not hold under close scrutiny of the mechanism disclosed in Weindorf.

Further, the Patent and Trademark Office ("PTO") determines the scope of claims in patent applications not solely on the basis of the claim language, but upon giving claims their

broadest reasonable construction "in light of the specification as it would be interpreted by one of ordinary skill in the art." *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364, 70 USPQ2d 1827 (Fed. Cir. 2004) (Emphasis added).

Applicants' Fig. 1 clearly shows, for example, the structure referenced by element number 12 that Applicants' refer to as a "turn-button", i.e., turn-button 12. As stated in Applicants' specification at page 2, lines 26-27, a rotation of the head portion 20 of turn-button 12 by a user operates lock mechanism 14. As such, to the extent that some portion of the lock cylinder 10 of Weindorf may generally correspond to the recited "turn-button" 12, that portion might be the interchangeable lock core 86 having the "*permanently attached thumb turn 94*" (emphasis added). Weindorf column 4, lines 35-37; Figs. 1 and 2. The interchangeable lock core 86 in turn is inserted into a corresponding aperture in second lock cylinder body 84. Weindorf column 4, lines 35-37; Figs. 1 and 2. However, as is clearly shown in Weindorf Fig. 1, the body of interchangeable lock core 86 does not include a "*shaft* having a leading helical end portion that engages said aperture of said lock mechanism", as recited in claim 1.

In view of the above, Applicants respectfully submit that Weindorf does not disclose, teach or suggest the subject matter of claim 1. Therefore, claim 1 is believed allowable in its present form.

Claim 2 depends from claim 1, and further recites, "said leading helical end portion having a plurality of leading helical surfaces that taper and twist from a transition line of said shaft toward a tip end of said shaft." However, the threaded portion of second lock cylinder body 84 of Weindorf does not disclose such structure. Rather, as shown in Weindorf Fig. 2, second lock cylinder body 84 has a single continuous screw thread defining a single continuous groove. Further, the screw thread of second lock cylinder body 84 of Weindorf

does not "taper and twist from a transition line of said shaft toward a tip end of said shaft", since second lock cylinder body 84 does not have a tip to have a tip end, and does not have a plurality of leading helical end surfaces that taper and twist . . . toward the tip end, as recited in claim 2. Accordingly, claim 2 is believed allowable in its own right.

Claim 3 depends from claim 2, and further recites that "said plurality of leading helical surfaces smoothly transition between adjacent helical surfaces." In contrast, the screw thread of second lock cylinder body 84 of Weindorf has a single continuous screw thread defining a single continuous groove. Accordingly, claim 3 is believed allowable in its own right.

In addition, claim 3 is believed to be allowable in view of its dependence from otherwise allowable intervening claim 2.

Claim 4 recites, "A turn-button for a lockset, comprising: a head portion; and a shaft extending from said head portion, said shaft having a leading helical end tip." Weindorf does not disclose a turn-button for a lockset, having a head portion and a shaft extending from said head portion, the shaft having a leading helical end tip, for reason set forth above with respect to claims 1 and 2.

Accordingly, claim 4 is believed allowable in its present form.

Claims 5 and 6 depend, directly or indirectly, from claim 4, and are believed to be allowable in view of their dependence from otherwise allowable base claim 4. In addition, claims 5 and 6 are believed allowable in their own right for substantially the same reasons set forth above with respect to claims 2 and 3, respectively. In addition, claim 6 is believed to be allowable in view of its dependence from otherwise allowable intervening claim 5.

Claim 7 recites, "A lockset comprising: a lock mechanism including an actuator having an aperture; an operator; a turn-button mounted in said operator, said turn-button

including a shaft; and means for facilitating *self-alignment of said shaft of said turn-button with said aperture of said lock mechanism* as said shaft of said turn-button is inserted into said aperture of said lock mechanism." (Emphasis added).

Applicants submit that Weindorf does not disclose, teach or suggest a turn-button as recited in claim 7 for substantially the same reasons set forth above with respect to claim 1.

In addition, Applicants submit that Weindorf does not provide means for facilitating self-alignment of a shaft of a turn-button with an aperture of a lock mechanism as the shaft of the turn-button is inserted into the aperture of the lock mechanism. In rejecting claim 7, reliance is placed on threads of second lock cylinder body 84 of Weindorf and their alignment with adapter ring 88. However, in this assertion by the Examiner the threads of second lock cylinder body 84 do not engage the aperture of the lock mechanism, i.e., the asserted exterior side wall 82 of lock case 34, since the threaded portion of second lock cylinder body 84 is threaded into the adapter ring 88. In Weindorf, it is the L-shaped shoulder of adapter ring 88 that is inserted into the cylindrical mounting hole 78 in exterior side wall 82.

In addition, nothing in the design of the threaded portion of the second lock cylinder body 84 of Weindorf would disclose, teach or suggest that the configuration of second lock cylinder body 84 would facilitate self-alignment, since as shown in Fig. 2, the threaded end of second lock cylinder body 84 is blunt and of constant diameter, and there is no disclosure, teaching or suggestion of means for self-alignment of second lock cylinder body 84 with adapter ring 88 in Weindorf.

Accordingly, claim 7 is believed to be in condition for allowance in its present form.

Claim 8 is believed allowable in view of its dependence from otherwise allowable claim 1. In addition claim 8 is believed allowable in its own right.

Claim 8 recites, "The lockset of claim 1, said lock mechanism including a rotatable *actuator having said aperture*, wherein once said leading helical end portion engages said aperture, a rotation of said turn-button effects a corresponding rotation of said rotatable actuator of said lock mechanism." (Emphasis added). In rejecting claim 8, the Examiner asserts that rotation of the turn-button rotates the cam assembly, relying on Weindorf column 4, lines 32-35. However, the only rotatable feature with regard to cam assembly 92 is the thumb turn 94 that is permanently attached to interchangeable lock core 86. While it is the cam assembly 92 that engages lock mechanism 55, however, it is apparent from Weindorf Figs. 1 and 2 that cam assembly 92 does not have a "leading helical end portion". Further, as shown in Weindorf Figs. 1 and 2, cam mechanism 92 would translate the rotatary motion of thumb turn 94 into a linear motion of lock mechanism 55, e.g., in a cam/cam follower arrangement.

Further, it is apparent from Weindorf Figs. 1 and 2 that the threaded portion of second lock cylinder body 84 for which the Examiner had previously asserted as corresponding to the recited shaft having the leading helical end portion does not engage lock mechanism 55.

Accordingly, Weindorf does not disclose, teach or suggest a lock mechanism including a rotatable actuator having said aperture, wherein once said leading helical end portion [of the turn-button] engages said aperture, a rotation of said turn-button effects a corresponding rotation of said rotatable actuator of said lock mechanism" (emphasis added), as recited in claim 8.

Claims 9 and 10 depend, directly or indirectly, from independent claim 7, and correspond generally to claims 2 and 3, respectively. Claims 9 and 10 further and patentably define Applicants' invention over Weindorf, and are believed allowable in their present form,

for substantially the same reasons set forth above with respect to claims 2 and 3. Also, claims 9 and 10 are believed allowable in view of their dependence from otherwise allowable base claim 7. In addition, claim 10 is believed allowable in view of its dependence from otherwise allowable intervening claim 9.

By this amendment, new claims 11-19 have been added.

New claims 11 and 17 generally recite that "said operator is one of a door knob and a door lever, said shaft of said turn-button extending [ ] through said one of said door knob and said door lever to engage said aperture of said lock mechanism." Support for claims 11 and 17 may be found in Applicants' specification at page 2, lines 21-33 and Fig. 1.

New claim 12 generally recites that "a rotation of said turn-button effects a corresponding rotation of said aperture of said lock mechanism." Support for new claim 12 may be found in Applicants' specification at page 2, lines 31-33 and page 3, lines 13-15.

New claims 13 and 18 generally recite that "said aperture of said lock mechanism has a substantially rectangular shape." Support for claims 13 and 18 may be found in Applicants' specification at page 2, lines 30-33.

New claims 14, 16 and 19 generally recite that "a number of said plurality of leading helical surfaces is greater than two." Support for claims 14, 16 and 19 may be found in Applicants' specification at page 3, lines 3-7 in relation to Fig. 2 showing four leading helical surfaces 40.

New claim 15 generally recites that "a perimeter of an elongate portion of said shaft has a substantially rectangular shape." Support for claim 15 may be found in Applicants' specification at page 2, lines 27-29.

Applicants believe new claims 11-19 further and patentably define the present invention over the prior art, and thus are believed to be allowable in their present form.

For the foregoing reasons, Applicants respectfully submit that the pending claims 1-19 are therefore in condition for allowance, and Applicants respectfully request withdrawal of all rejections and allowance of the claims.

In the event Applicants have overlooked the need for an extension of time, an additional extension of time, payment of fee, or additional payment of fee, Applicants hereby conditionally petition therefor and authorize that any charges be made to Deposit Account No. 20-0095, TAYLOR & AUST, P.C.

Should any question concerning any of the foregoing arise, the Examiner is invited to telephone the undersigned at (317) 894-0801.

Respectfully submitted,

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